

Exhibit B

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

ASETEK DANMARK A/S,)
)
Plaintiff and)
Counterdefendant,)
)
VS.) CASE NO.
) 3:19-CV-00410-EMC
COOLIT SYSTEMS, INC.,)
)
Defendant and Counterclaimant.)
)
COOLIT SYSTEMS USA INC. COOLIT)
SYSTEMS ASIA PACIFIC LIMITED,)
COOLIT SYSTEMS (SHENZHEN) CO.,)
LTD.,)
)
Defendants,)
)
CORSAIR GAMING, INC. and)
CORSAIR MEMORY, INC.,)
)
Defendants.)

REMOTELY CONDUCTED VIDEOTAPED DEPOSITION OF
DAVID B. TUCKERMAN, PH.D.
Lake Stevens, Washington (Witness' location)
Friday, March 18, 2022

Reported by:
LYDIA ZINN
RPR, FCRR, CSR No. 9223
Job No. SF 5137947
PAGES 1 - 103

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Remotely conducted videotaped deposition of
DAVID B. TUCKERMAN, PH.D., taken on behalf of
Defendant/Counterclaimants COOLIT SYSTEMS USA INC.
COOLIT SYSTEMS ASIA PACIFIC LIMITED, COOLIT SYSTEMS
(SHENZHEN) CO., LTD., CORSAIR GAMING, INC. and CORSAIR
MEMORY, INC., at Lake Stevens, Washington, beginning at
2:17 p.m. and ending at 5:59 p.m., on Friday, March 18,
2022, before LYDIA ZINN, Certified Shorthand Reporter
No. 9223.

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I N D E X

Friday, March 18, 2022

WITNESS PAGE

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EXHIBITS MARKED FOR IDENTIFICATION PAGE

EXHIBIT 362 US Patent Application

Publication US 2007/0163750

(Bhatti)

ASE-CLT00044399 to -00044405 73

EXHIBIT 363 Judgment re: IPR2020-00825,
Patent 10,274,266 (49 pages) 76

EXHIBIT 364 US Patent Application

Publication US 2006/0096738

(Kang)

ASE-CLT00044566 to -00044574 77

EXHIBITS PREVIOUSLY MARKED PAGE

EXHIBIT 259 Expert Report of Dr. David B.
Tuckerman Regarding
Invalidity of US Patent Nos.
8,746,330; 9,603,284; and
8,274,266 (75 pages) 8EXHIBIT 259A Invalidity Claim Charts I and
II for US Patent No. 8,746,330
(80 pages) 8EXHIBIT 259B Invalidity Claim Charts I
through IV for US Patent No.
9,603,284 (77 pages) 8EXHIBIT 259C Invalidity Claim Chart for
US Patent No. 10,274,266
(13 pages) 8

EXHIBIT 259D Curriculum Vitae 8

EXHIBIT 259E Materials Considered in
Preparation of Invalidity
Expert Report 8

1 MS. BHATTACHARYYA: -- I will suspend the 2:24:54PM
2 deposition.

3 MR. REUBEN CHEN: I will not do that.

4 MS. BHATTACHARYYA: Mr. Chen, if you wanted
5 to ask questions about Antarctica, you should have 2:24:59PM
6 listed that as one of the topics.

7 I -- I mean, I can give some leeway to
8 Dr. Tuckerman and see if he recalls; but if you ask
9 in-depth questions about the Antarctica, about
10 what's -- what's in his report, then he will either 2:25:13PM
11 have to review his report or -- or you have to just
12 move on.

13 You should have listed Antarctica as one of the
14 topics, like you did with Bhatti, Kang, Hamilton,
15 secondary considerations. You should have listed 2:25:25PM
16 Antarctica. You just did not. And now you cannot
17 change the scope of this deposition.

18 So you can save your questions till the end about
19 the Antarctica, and just go on and ask your other
20 questions. 2:25:41PM

21 MR. REUBEN CHEN: Ms. Bhattacharyya, you are
22 coaching the witness right now.

23 MS. BHATTACHARYYA: I am not coaching the
24 witness.

25 MR. REUBEN CHEN: You should stop that. 2:25:42PM

1 Please -- 2:25:46PM

2 MS. BHATTACHARYYA: He -- he has the topics.

3 He got the ten topics.

4 MR. REUBEN CHEN: Please, please limit your

5 statements to objections or instructions not to answer 2:25:53PM

6 questions.

7 MS. BHATTACHARYYA: You can ask your

8 question.

9 BY MR. REUBEN CHEN:

10 Q Dr. Tuckerman -- Dr. Tuckerman, I will repeat my 2:26:00PM

11 question.

12 A Okay.

13 Q You did not include any evidence of measurements

14 of the channels of the Antarctica device in your

15 report. Correct? 2:26:13PM

16 A Are you referring to the --

17 MS. BHATTACHARYYA: Objection. Out --

18 mischaracterizes prior testimony, Dr. Tuckerman's

19 report. Outside the scope of this deposition.

20 THE WITNESS: Are -- now, which report are 2:26:27PM

21 you referring to here? Are you referring to the report

22 that's in -- that's Exhibit 259 or...

23 BY MR. REUBEN CHEN:

24 Q Yes, your Invalidity Report, Dr. Tuckerman.

25 A Okay. So... 2:26:39PM

1 Q This would be paragraph 57 of your report. 2:26:49PM

2 A Ah, thank you. That speeds things up. Okay.

3 So I... Okay. So I'm saying space between

4 adjacent fins is about 0.9 to 1.0 millimeters. And,

5 while I don't specify that here, I deposed -- I was 2:27:24PM

6 deposed previously on this, and indicated that I took

7 measurements with calipers at the bottoms of the

8 microchannels on July 5th -- I think it was -- and

9 got -- didn't get any measurements above 1.0. And they

10 were all .9-something. But that -- that's about all. 2:27:47PM

11 I mean, I didn't.

12 Q And you testified that you did not submit any

13 evidence of the measurements that you took in your

14 report. Correct?

15 MS. BHATTACHARYYA: Objection. 2:28:07PM

16 Mischaracterizes prior testimony. Outside the scope of

17 this deposition.

18 THE WITNESS: Well, I mean, my assertion was

19 based on having done these measurements. So, I mean...

20 BY MR. REUBEN CHEN: 2:28:25PM

21 Q Right, but listen to the question. The question

22 is: Did you submit any evidence of the measurements

23 that you took and included that evidence in your

24 report?

25 MS. BHATTACHARYYA: Same objections. 2:28:35PM

1 THE WITNESS: I took some measurements. And 2:28:42PM
2 I reported that they were between .9 and 1.0. And
3 that -- that's all I did.

4 BY MR. REUBEN CHEN:

5 Q But do you have any evidence that you submitted in 2:28:53PM
6 your report that reflects that you took those
7 measurements?

8 MS. BHATTACHARYYA: Objection. Outside the
9 scope of this deposition. Mischaracterizes prior
10 testimony and the report. 2:29:06PM

11 BY MR. REUBEN CHEN:

12 Q Dr. Tuckerman, you testified under oath previously
13 that you did not take any pictures of the measurements
14 that you allegedly took. Correct?

15 MS. BHATTACHARYYA: Objection. 2:29:21PM
16 Mischaracterizes prior testimony. Mischaracterizes
17 report. Outside the scope of this deposition.

18 THE WITNESS: I don't remember what my exact
19 words were. I did not keep records of the
20 measurements, if that's what you mean. I don't know 2:29:37PM
21 exactly what words I used.

22 BY MR. REUBEN CHEN:

23 Q Right. So there are no records of your
24 measurements that are included in your report.
25 Correct? 2:29:46PM

1 MS. BHATTACHARYYA: Same objections. 2:29:48PM

2 THE WITNESS: I didn't think it was necessary

3 at the time. I mean, it -- I wasn't asked to do that.

4 BY MR. REUBEN CHEN:

5 Q Okay. Now, after your report was submitted but 2:29:58PM

6 before you were deposed in December of 2021, you

7 reviewed a document provided by Asetek's counsel that

8 allegedly discussed a machining tool. Correct?

9 MS. BHATTACHARYYA: Objection. Outside the

10 scope of this deposition. 2:30:17PM

11 Mr. Reuben, I'm going to suspend this deposition

12 now.

13 Which -- which topic are you referring to? You

14 had ten topics in your deposition. What are you

15 talking about? 2:30:26PM

16 MR. REUBEN CHEN: Let's go off the record.

17 Let's go off the record, because you're -- you're

18 eating up time by being --

19 MS. BHATTACHARYYA: Then go off the record

20 and discuss -- 2:30:32PM

21 MR. REUBEN CHEN: Let's go off the record.

22 Let's go off the record.

23 MS. BHATTACHARYYA: Okay.

24 THE VIDEOGRAPHER: We are going off the

25 record. The time is 2:30 p.m. Pacific. And this is 2:30:36PM

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1 the end of media unit one. 2:30:40PM
2 (Discussion off the record.)
3 THE VIDEOGRAPHER: We're going back on the
4 record. The time is 3:13 p.m., and this is the
5 beginning of media unit two. Please continue. 3:13:16PM
6 MR. REUBEN CHEN: Thank you.
7 Q. Dr. Tuckerman, after your Expert Report was
8 submitted, but before being deposed, you reviewed a
9 document provided by Asetek's counsel that allegedly
10 discussed a machining tool. Correct? 3:13:34PM
11 MS. BHATTACHARYYA: Objection. Outside the
12 scope of the topics provided for this deposition.
13 THE WITNESS: I do recall that, yes.
14 BY MR. REUBEN CHEN:
15 Q And was it Ms. Bhattacharyya that showed you that 3:13:49PM
16 document?
17 MS. BHATTACHARYYA: Same objection.
18 Mischaracterizes prior testimony.
19 THE WITNESS: I saw a -- Ms. Bhattacharyya
20 showed me a document with a -- with a blade, and -- and 3:14:04PM
21 a measurement of the blade.
22 BY MR. REUBEN CHEN:
23 Q Do you recall when you review --
24 MS. BHATTACHARYYA: Dr. Tuckerman, I caution
25 you -- Dr. Tuckerman, I caution you to not reveal 3:14:15PM

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1 discussions with counsel. 3:14:20PM

2 THE WITNESS: Okay. Yes.

3 BY MR. REUBEN CHEN:

4 Q Did you recall when you reviewed that document?

5 A Not exactly, no. 3:14:28PM

6 Q Was it in December of 2021?

7 MS. BHATTACHARYYA: Same objections.

8 THE WITNESS: I don't know.

9 BY MR. REUBEN CHEN:

10 Q Okay. Was it as part of preparing for your 3:14:41PM

11 deposition in December of 2021?

12 MS. BHATTACHARYYA: Same objections.

13 THE WITNESS: Well, as I recall, the -- this

14 issue came up and -- of, you know, what -- what were

15 the dimensions. 3:15:10PM

16 So, I mean -- I mean, what was -- what was the

17 question again? Sorry.

18 MR. REUBEN CHEN: That's okay. I'll move on

19 to the next one.

20 THE WITNESS: Yeah. 3:15:21PM

21 BY MR. REUBEN CHEN:

22 Q Is that document written in Danish?

23 A Yeah. As I recall, it was.

24 Q And you don't read Danish. Correct?

25 A I -- I do not. 3:15:35PM

1 Q Did someone translate that document for you? 3:15:36PM
2 A Nobody translated it for me.
3 Q To your knowledge, does Ms. Bhattacharyya read
4 Danish?
5 A I would not know. 3:15:50PM
6 MS. BHATTACHARYYA: Objection. Calls for
7 speculation.
8 THE WITNESS: I would not know one way or the
9 other.
10 BY MR. REUBEN CHEN: 3:15:58PM
11 Q Okay. So you don't know for certain that the
12 document discusses a machining tool used to create
13 Antarctica. Correct?
14 MS. BHATTACHARYYA: Objection. Calls for
15 speculation. Foundation. 3:16:07PM
16 THE WITNESS: It --
17 MS. BHATTACHARYYA: And objection. Outside
18 the scope of the deposition topics.
19 THE WITNESS: It -- as I recall, it was
20 represented as having been provided by Asetek to 3:16:31PM
21 counsel as being the blade or a blade that -- that was
22 used for machining of Antarctica.
23 BY MR. REUBEN CHEN:
24 Q Who made those representations to you?
25 MS. BHATTACHARYYA: Objection. Outside the 3:16:51PM

1 scope of the deposition topics. 3:16:52PM

2 I will caution Dr. Tuckerman not to reveal

3 contents of discussions with counsel.

4 MR. REUBEN CHEN: I'm not asking for the

5 content. I'm asking who. 3:17:02PM

6 MS. BHATTACHARYYA: Same. Same objections.

7 The -- the question calls for privileged information.

8 MR. REUBEN CHEN: I disagree with that.

9 Are you instructing the witness not to answer?

10 MS. BHATTACHARYYA: I instruct the witness 3:17:13PM

11 not to answer any questions of discussions with

12 counsel.

13 BY MR. REUBEN CHEN:

14 Q Same question, then. Who --

15 MS. BHATTACHARYYA: Same -- 3:17:22PM

16 BY MR. REUBEN CHEN:

17 Q. Who represented to you that the document discusses

18 the machining tool used to create Antarctica?

19 MS. BHATTACHARYYA: I will instruct the

20 witness not to answer the question. It calls for 3:17:33PM

21 information that is protected under Rule 26.

22 MR. REUBEN CHEN: I disagree, and so I'll

23 just reserve my right to redepose Dr. Tuckerman to ask

24 him that -- that specific question.

25 Q Dr. Tuckerman, were you ever shown the entire 3:17:47PM

1 document, or just a picture of one page of that 3:17:49PM
2 document?
3 A I -- I saw only one -- that one page.
4 Q A picture of that one page?
5 MS. BHATTACHARYYA: Objection. 3:18:04PM
6 Mischaracterizes exhibits and prior testimony.
7 THE WITNESS: Well, yeah. I mean, I didn't
8 have the physical page. It was, you know, a JPG or
9 whatever.
10 BY MR. REUBEN CHEN: 3:18:17PM
11 Q You didn't have the physical document in front of
12 you. There was just a JPEG of one page of the
13 document. Is that -- is that accurate?
14 MS. BHATTACHARYYA: Objection. Objection.
15 Mischaracterizes prior -- mischaracterizes the record 3:18:26PM
16 and prior testimony.
17 THE WITNESS: I mean, I don't -- I don't know
18 if it was a JPEG. I -- I was shown an image that
19 appeared to be from a machining manual.
20 BY MR. REUBEN CHEN: 3:18:51PM
21 Q So there was an image of one page of a document --
22 correct? -- that you reviewed?
23 MS. BHATTACHARYYA: Objection. Outside the
24 scope of deposition topics. Mischaracterizes prior
25 testimony and exhibits from prior depositions. 3:19:03PM

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1 Mischaracterizes the record. 3:19:07PM

2 THE WITNESS: That's what it appeared to be.

3 BY MR. REUBEN CHEN:

4 Q Okay. But you never reviewed the entire document.

5 Correct? 3:19:16PM

6 MS. BHATTACHARYYA: Objection. Foundation.

7 Outside the scope of the deposition.

8 THE WITNESS: I was shown that one page.

9 BY MR. REUBEN CHEN:

10 Q Okay. And it wouldn't have mattered anyway, 3:19:29PM

11 because you don't read Danish. Right?

12 MS. BHATTACHARYYA: Objection. Outside the

13 scope of the deposition.

14 THE WITNESS: As I said, it was represented

15 to me that that was the blade that was -- that -- a 3:19:48PM

16 blade that had been used in Antarctica.

17 BY MR. REUBEN CHEN:

18 Q And there was an alleged measurement of the

19 machining tool. Correct?

20 MS. BHATTACHARYYA: Objection. 3:19:35PM

21 Mischaracterizes exhibit. Prior testimony. Outside

22 the scope of the deposition topics.

23 THE WITNESS: So the picture showed the tool

24 being measured with -- with calipers. The width. The

25 blade width it showed. 3:20:21PM

1 BY MR. REUBEN CHEN: 3:20:24PM

2 Q Do you know who measured the machining tool?

3 MS. BHATTACHARYYA: Same objections.

4 THE WITNESS: I do not.

5 BY MR. REUBEN CHEN: 3:20:31PM

6 Q You did not measure the machining tool. Correct?

7 A No, I never laid hands on the tool.

8 Q Do you know how the machining tool was measured?

9 MS. BHATTACHARYYA: Same objections.

10 THE WITNESS: It was -- it appeared to be, 3:20:48PM

11 from the picture, measured in a very conventional

12 manner, the same way I would have measured it, which

13 was to put it in calipers, and -- and measure it.

14 BY MR. REUBEN CHEN:

15 Q Do you know that for certain; that a caliper was 3:21:04PM

16 used to measure the machining tool?

17 MS. BHATTACHARYYA: Same objections.

18 THE WITNESS: Well, I mean, I don't have the

19 image in front of me, but unless I'm recalling wrongly,

20 there was a pair of digital calipers clamped on the -- 3:21:24PM

21 on the blade, you know. So it -- it -- that was how

22 anyone of ordinary skill in the art would have made

23 that sort of measurement.

24 BY MR. REUBEN CHEN:

25 Q Now, as a matter of physics and manufacturing 3:21:47PM

1 practice, an actual channel in Antarctica is going to 3:21:50PM
2 be wider than the width of the component in the
3 machining tool used to create that channel. Correct?

4 MS. BHATTACHARYYA: Objection. Outside the
5 scope of the deposition topics. Foundation. 3:22:07PM
6 Mischaracterizes the record.

7 THE WITNESS: So generally with that type of
8 machining with blades, you -- you get a taper. Okay?
9 There's blade wobble, and such. And you -- you know,
10 you get something that's wider at the top than at the 3:22:31PM
11 bottom.

12 At the bottom you would expect to get -- you know,
13 either exactly the blade width, or if the blade has
14 worn, you know, because when blades have been used for
15 a while they can, you know, get -- get narrower, maybe 3:22:48PM
16 it would be even less. But you know, that -- like I
17 say, you get a taper. And you're going to get -- you
18 know, I think I kind of answered that.

19 BY MR. REUBEN CHEN:

20 Q Now, just to be clear, you testified that it was 3:23:20PM
21 represented to you that the document discusses the
22 machining tool used to create Antarctica. Correct?

23 MS. BHATTACHARYYA: Same objections.

24 THE WITNESS: Not -- not necessarily that
25 particular Antarctica unit; but I mean, it -- it was 3:23:45PM

1 represented as a -- a machining tool that was used in 3:23:50PM
2 the production of Antarcticas. There's -- there was no
3 representation made that that particular tool was used
4 on that particular Antarctica. As I think I mentioned
5 in the past, for all I know it was -- you know, maybe 3:24:08PM
6 it was an out-of-spec unit.

7 I mean, who -- you know, it was -- it was just one
8 physical sample that I measured. And I was mainly just
9 concerned that, you know, it -- it wasn't grossly out
10 of line on dimensions. So I put the calipers in; made 3:24:25PM
11 the measurements.

12 None of them that I measured were above
13 1 millimeter. And I was -- I was satisfied.

14 BY MR. REUBEN CHEN:

15 Q So your opinion that Antarctica has channels that 3:24:41PM
16 are between 0.9 to 1 millimeters -- are you relying on
17 the representation that the document in Danish
18 discusses the machining tool that was used to create
19 Antarctica?

20 MS. BHATTACHARYYA: Objection. Outside the 3:25:08PM
21 scope of the deposition topics. Mischaracterizes prior
22 deposition testimony.

23 THE WITNESS: So the -- the only thing I can
24 actually assert about the dimensions of that particular
25 Antarctica were the measurements that I took on that 3:25:37PM

1 particular sample, which I measured with calipers at 3:25:43PM
2 the base of the samples, and got numbers that were
3 close to but not in excess of 1 millimeter.

4 The other information, you know, about the blade I
5 just viewed as plausible corroboration that that's a 3:26:04PM
6 blade that was used in Antarctica machining, and
7 therefore that you would expect that the channel widths
8 would be the order of a millimeter from that sort of
9 blade. And so it -- it kind of tied, but I certainly
10 wasn't taking anyone's word for -- for that. 3:26:36PM

11 Like I say, I didn't -- you know, I was asked in
12 the deposition about it. And I believe -- you know, I
13 don't remember exactly what I said, but the -- it -- it
14 seemed very plausible that that kind of blade would
15 have been used to make the structure -- to make the 3:26:58PM
16 structures that I measured on that Antarctica sample.

17 But the only thing I can factually assert to you
18 is I made measurements at the bases of the channels on
19 that Antarctica with calipers; did not get any
20 measurements above 1 millimeter. But they were very 3:27:17PM
21 close, you know. Nine-something. So...

22 BY MR. REUBEN CHEN:

23 Q. Are you relying on what you call the "plausible
24 corroboration" of that document for your ultimate
25 opinion that Antarctica's channels satisfy the 3:27:31PM

1 microchannels limitation? 3:27:37PM

2 MS. BHATTACHARYYA: Objection. Outside the
3 scope of the deposition topics. Mischaracterizes prior
4 testimony.

5 THE WITNESS: First of all, I considered the 3:28:03PM

6 issue rather immaterial, since the obviousness of using
7 microchannels is so blatant, given that I invented

8 them, you know -- I -- I published them, you know, in

9 the 1981-1984 time frame. And, you know, here we're

10 talking, you know, 2000 -- mid 2000s in this 3:28:24PM

11 litigation.

12 So the -- you know, it was -- the idea that these

13 could be microchannels was so obvious that I didn't

14 think it needed a lot of --

15 But you know, I understand there's this legal 3:28:46PM

16 definition for the purposes of this litigation. And

17 so -- like I say, which I consider not something that a

18 person skilled in the art would have considered as a

19 relevant limitation, because of the known obviousness

20 of microchannels. 3:29:08PM

21 So the fact that I had this sample and got

22 channels not more than a millimeter wide in my

23 measurements -- you know, I felt it -- it helped, but I

24 didn't consider it super important.

25 So, you know, I can't -- I don't have really any 3:29:27PM

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1 more information about Antarctica than, you know, the 3:29:35PM
2 documents that -- that I think you've all seen, and
3 those measurements that I made.

4 The -- but -- but I -- you know, when I understood
5 that this blade was used for machining of at least some 3:29:55PM
6 Antarcticas I thought, yeah, that -- you know, that
7 ties.

8 You know, you'll get channels nominally a
9 millimeter. They -- they'd be a little bit less with
10 that blade at the base, you know. So it -- it fit 3:30:13PM
11 the -- you know, the claim that that blade was used
12 fit/tied with my measurements.

13 But you know, I can't -- I can only tell you
14 what -- you know, what I know. And I've told you, I
15 think, what I know. 3:30:35PM

16 MR. REUBEN CHEN: Okay. I'm going to object
17 to everything in your answer except for your
18 discussion -- except for your discussion regarding the
19 blade that was used for machining as nonresponsive to
20 my question. 3:30:50PM

21 MS. BHATTACHARYYA: I disagree, but go ahead.

22 BY MR. REUBEN CHEN:

23 Q It sounds like you are relying on that Danish
24 document as part of your opinion on the channels of
25 Antarctica. Correct? 3:31:06PM

1 MS. BHATTACHARYYA: Objection. Form. 3:31:10PM
2 Outside the scope of this deposition -- of this
3 deposition topics. Mischaracterizes prior testimony.
4 THE WITNESS: So what I was relying on --
5 BY MR. REUBEN CHEN: 3:31:34PM
6 Q Let me just -- let me just ask you about the
7 Danish document. Are you --
8 MS. BHATTACHARYYA: No.
9 BY MR. REUBEN CHEN:
10 Q -- or are you not relying on the Danish document 3:31:35PM
11 for your opinion regarding the channels of Antarctica?
12 MS. BHATTACHARYYA: Mr. Chen, are you
13 withdrawing your prior question?
14 MR. REUBEN CHEN: Yes, I withdraw my prior
15 question. 3:31:52PM
16 Q I'll ask a fresh question. That question is:
17 Dr. Tuckerman, are you or are you not relying on the
18 Danish document for your opinion regarding the channels
19 of Antarctica?
20 MS. BHATTACHARYYA: Objection. Form. 3:32:08PM
21 Outside the scope of this deposition. Mischaracterizes
22 prior testimony.
23 THE WITNESS: So, I mean, I can say what I
24 said already. The -- the unit that I measured, I
25 measured at the bases of the channels. The widths did 3:32:28PM

1 not exceed 1 millimeter. That was represented to me as 3:32:33PM
2 being an Antarctica product.

3 I -- I don't know -- I mean, obviously, it wasn't
4 one that was shaped, because it was, you know -- you
5 know, in -- but the -- it -- if that sample was 3:32:49PM
6 representative of other Antarcticas, then I felt that
7 it was -- you know, that it -- it met the -- the legal
8 definition.

9 And the -- as regards the Danish document, I -- I
10 thought, okay. That's -- that's nice information. 3:33:23PM
11 That certainly, you know, adds further support in it.

12 But "rely" is a pretty strong word. I'm -- I'm
13 not saying that I rely on it.

14 BY MR. REUBEN CHEN:

15 Q Okay. Let me switch to a different topic. Let's 3:33:38PM
16 go to claim 13 of the '266 patent, which I will now
17 enter into the record.

18 MS. BHATTACHARYYA: Mr. Chen, again, claim 13
19 is not one of your deposition topics.

20 THE WITNESS: Yeah. I thought claim 13 -- 3:33:59PM

21 MR. REUBEN CHEN: There is a claim limitation
22 in claim 13 that is definitely one of the deposition
23 topics.

24 MS. BHATTACHARYYA: Okay. So you are going
25 to ask about the fluid passages, if that's what -- the 3:34:08PM

Page 30

1 one you're referring to. 3:34:11PM

2 MR. REUBEN CHEN: That is exactly where I'm

3 going. Please give --

4 MS. BHATTACHARYYA: Okay. That's fine.

5 MR. REUBEN CHEN: -- me a little bit more 3:34:13PM

6 benefit of the doubt. Thank you.

7 MS. BHATTACHARYYA: Okay.

8 THE WITNESS: So claim 13 rather than claim

9 15? Is this what we're looking at?

10 BY MR. REUBEN CHEN: 3:34:27PM

11 Q Yeah. Let's start with claim 13. If we have

12 time, we will talk about claim 15 as well.

13 So in claim --

14 THE WITNESS: Wait, wait. Hold on. I've got

15 to get the patent up. Is it on the exhibit list? 3:34:36PM

16 MR. REUBEN CHEN: I entered it into the

17 record. So I've entered previously marked Exhibit 265

18 in the record.

19 (Deposition Exhibit 265 previously marked for

20 identification.)

21 THE WITNESS: Ah, okay. Yeah. All right. 3:34:52PM

22 Claim 13.

23 BY MR. REUBEN CHEN:

24 Q And I specifically want to ask you about the

25 limitation "a fluid outlet passage configured to

receive the heat-exchange fluid..." 3:35:23PM

1 A Okay. So second-from-last clause in that claim? 3:35:41PM
2 That's what you're saying?
3 Q Right.
4 A All right.
5 Q Yeah. 3:35:46PM
6 A Okay.
7 Q So you see the words "fluid outlet passage."
8 Correct?
9 A I do.
10 Q Okay. So would you agree that the fluid outlet 3:35:53PM
11 passage starts at the openings of the microchannels?
12 MS. BHATTACHARYYA: Objection.
13 Mischaracterizes the record.
14 THE WITNESS: Let's find the definition of...
15 Oh, okay. Fluid outlet passage. That's 106. 3:36:33PM
16 Okay. So fluid outlet passage 106 -- okay -- which in
17 the illustrated embodiment includes one or more fluid
18 outlet openings 124 from the microporous fluid channels
19 103, a header, and an outlet port 128 opening from the
20 housing. 3:38:44PM
21 So it would -- okay. So -- so repeat your
22 question, please.
23 BY MR. REUBEN CHEN:
24 Q Sure. Would you agree that the fluid outlet
25 passage starts at the openings of the microchannels? 3:38:58PM

1 really see the difference. It -- it sits atop the 5:37:33PM
2 plate --
3 BY MR. REUBEN CHEN:
4 Q Mm-hm.
5 A -- in the CoolIT patent. And the shoulder sits 5:37:37PM
6 atop the plate here in Kang. I mean...
7 MR. REUBEN CHEN: Okay. I have questions
8 about Hamilton and how you've used it with respect to
9 other claim elements that we haven't discussed, but I
10 think -- I think Ms. Bhattacharyya's probably going to 5:37:58PM
11 stop me from asking you those questions, so...
12 MS. BHATTACHARYYA: Mr. Chen, you spent quite
13 a lot of time on Hamilton. I was actually doing a
14 tally. You had ten topics, and you have asked
15 questions on nine of them, including Hamilton. The 5:38:13PM
16 only topic that we haven't touched is claim 15 of the
17 '266 patent.
18 If you want -- if you have any questions on claim
19 15 of the '266 patent, I'll let you a few minutes to
20 ask that. 5:38:30PM
21 We have now been, like, close to 25 minutes -- at
22 least 23 minutes over the two-hour limit. If the
23 videographer can actually give me a read of the time we
24 have on the record, that would be good. You know, you
25 had a two-hour deposition. 5:38:55PM

1 And, like I said, if you have any questions about 5:38:57PM
2 claim 15 of the '266, which is the tenth topic on your
3 list -- the only topic that you have not asked
4 questions on -- I'll let you a few minutes to do that.
5 Otherwise, we'll have to wrap it up. 5:39:11PM

6 MR. REUBEN CHEN: I do have questions about
7 claim 15. I will ask them.

8 And I do also have additional questions about
9 Hamilton. And there's obviously that one question
10 where you instructed Dr. Tuckerman not to answer with 5:39:24PM
11 respect to privilege. So I will reserve my rights with
12 respect to questions that I wanted to ask with respect
13 to Hamilton, and also that one question regarding
14 privilege.

15 And I do appreciate you letting me ask questions 5:39:39PM
16 about claim 15 of the '266 patent.

17 I will put on the record that I think that with
18 respect to certain questions -- in particular, the
19 fluid outlet passage, and then questions about the
20 fluid flow through Hamilton and through Chang -- that 5:39:56PM
21 Dr. Tuckerman took a long time answering those
22 questions. I think that's why.

23 MS. BHATTACHARYYA: Mr. Chen, I disagree.
24 But even if it took one or two extra minutes, I have
25 given you close to 25 extra minutes. And I'm willing 5:40:13PM

1 to give you more. I just don't want to be here all 5:40:16PM
2 night. I mean, Judge Beeler specifically said two
3 hours. And, you know, you have had -- had now, like,
4 close to two and a half hours. So I -- you know, we
5 have to end at some point. So -- 5:40:30PM

6 And, you know, if you want to rephrase your
7 question about that question where there was a
8 privilege objection, maybe you can rephrase that and
9 ask.

10 And, you know, I'll -- let me be clear. The 5:40:42PM
11 reason I -- I objected was the way you phrased it, a
12 yes/no answer would reveal privileged discussions. So
13 you are free to rephrase it and ask it. And I'll
14 assess it. And, you know, Dr. Tuckerman can answer.

15 I -- I just -- the way you had phrased it, even a 5:41:02PM
16 yes/no answer or who revealed it to you would --
17 would -- would reveal information that is protected
18 under Rule 26. So I'm going to give you an opportunity
19 to ask that again, but be careful about how you phrase
20 your question. 5:41:21PM

21 MR. REUBEN CHEN: Yeah. I disagree, but let
22 me go ahead and try to rephrase so that we can avoid
23 this dispute.

24 Q So, Dr. Tuckerman, with respect to the Danish
25 document that allegedly discusses the tool that was 5:41:38PM

1 used to create channels in the Antarctica device, since 5:41:43PM
2 you did not read Danish, you relied on the
3 representation that was provided to you regarding that
4 document. Correct?

5 MS. BHATTACHARYYA: Objection. Form. 5:42:19PM
6 Mischaracterizes prior testimony and the document
7 referred to here.

8 Since this was not one of the deposition topics,
9 Mr. Chen, maybe you can show Dr. Tuckerman the
10 document. 5:42:40PM

11 MR. REUBEN CHEN: I don't think that's
12 necessary.

13 MS. BHATTACHARYYA: This is not one of the
14 deposition topics, so I'm not sure --

15 MR. REUBEN CHEN: I disagree. And I think it 5:42:51PM
16 falls into microchannel. So we don't need to have that
17 fight again. So --

18 MS. BHATTACHARYYA: No, I'm not --
19 (Crosstalk.)

20 MR. REUBEN CHEN: -- submitted. 5:42:51PM

21 MS. BHATTACHARYYA: Okay. I am letting you
22 ask the question again, you know, half an hour after
23 your deposition time was over. Okay? So be fair with
24 me -- with me here, Mr. Chen.

25 You're asking about a document that you have not 5:43:09PM

1 introduced as an exhibit today. And you are -- you're 5:43:11PM
2 misrepresenting the document.

3 And I'm just saying just maybe show it to him.

4 MR. REUBEN CHEN: I'm not going to show any
5 document to him that's written in Danish, because he 5:43:24PM
6 can't read Danish. There's no point.

7 MS. BHATTACHARYYA: You should know. That's
8 what I'm saying there. You are misrepresenting the
9 document. It's not all in Danish. You are
10 misrepresenting the document because -- show 5:43:37PM
11 Dr. Tuckerman the document.

12 MR. REUBEN CHEN: I'm -- I'm not going to do
13 that. So...

14 MS. BHATTACHARYYA: I'm telling you it's not
15 all in Danish. 5:43:49PM

16 MR. REUBEN CHEN: I'm not going to introduce
17 a document. And I -- I disagree. So...

18 MS. BHATTACHARYYA: Let me get the record
19 straight. You are going to keep asking Dr. Tuckerman
20 about an exhibit that -- 5:44:26PM

21 MR. REUBEN CHEN: We --

22 MS. BHATTACHARYYA: -- he -- he -- is outside
23 the deposition topics today. He's not prepared. And
24 you would not show that exhibit to him. So you are
25 asking him to answer from memory. Is that correct? 5:44:39PM

1 MR. REUBEN CHEN: We -- I believe we're all 5:43:45PM
2 referring to -- there's only one document in Danish he
3 was shown after he had submitted his report, before his
4 deposition in December, that allegedly shows a tool or
5 discusses a tool that -- that was used to create the 5:45:09PM
6 channels in Antarctica. So there's -- there's no
7 dispute about it.

8 I'm asking him what is he relying on for his
9 understanding of that document, since he obviously
10 doesn't read Danish. 5:45:26PM

11 MS. BHATTACHARYYA: And I'm telling you --

12 MR. REUBEN CHEN: And he said that -- he made
13 a representation about that document.

14 And I'm trying to figure out: Who -- who provided
15 that representation to him? 5:45:35PM

16 He's obviously relying on it. Right? Otherwise,
17 I wouldn't be allowed to say anything about it.

18 MS. BHATTACHARYYA: Mr. Chen, I am
19 representing to you that it is an Asetek document.
20 That was -- that's from Asetek. That was provided via 5:45:49PM
21 counsel to Dr. Tuckerman.
22 (Crosstalk.)

23 MS. BHATTACHARYYA: Does that satisfy your
24 inquiry?

25 MR. REUBEN CHEN: Sure, but Dr. Tuckerman has 5:46:09PM

1 testified that he's never spoken with anybody at 5:46:11PM
2 Asetek.

3 And so I'm asking him -- it was very clear that it
4 was counsel that provided the representation to him.
5 That's all I want to get. He relied on something -- 5:46:19PM
6 (Crosstalk.)

7 MS. BHATTACHARYYA: -- correct in that
8 assumption. You are not correct in that assumption,
9 Mr. Chen. You are -- you are assuming a lot of things
10 here. 5:46:29PM

11 MR. REUBEN CHEN: Okay.

12 MS. BHATTACHARYYA: And you are again -- you
13 are assuming a lot of things here.

14 MR. REUBEN CHEN: Fine.

15 MS. BHATTACHARYYA: I will tell you one thing. 5:46:36PM
16 If you show the exhibit, it will become clear, because
17 it's not all in Danish.

18 MR. REUBEN CHEN: I'm not going to show the
19 exhibit. So --

20 MS. BHATTACHARYYA: Okay. Then I think we'll 5:46:44PM
21 just have to end this line of questions, because --

22 MR. REUBEN CHEN: No. I'm going to rephrase,
23 actually.

24 Q Dr. Tuckerman, just to be clear, you've never
25 spoken with anybody at Asetek. Correct? 5:46:53PM

1 A To the best of my knowledge, that's correct. 5:46:58PM

2 Q Okay. So no one from Asetek spoke -- spoke to you

3 about the Danish document that allegedly shows a

4 machining tool that was used to create the channels in

5 Antarctica. Correct? 5:47:21PM

6 MS. BHATTACHARYA: Objection. Form.

7 Mischaracterizes the document referred. Asked and

8 answered.

9 THE WITNESS: So, as Arpita did mention,

10 it -- she's refreshed my memory. It -- it wasn't 5:47:35PM

11 entirely in Danish. There were some words I -- I -- I

12 believe I could understand. I certainly could --

13 Anyway, the -- yeah. As I said, I -- I haven't

14 spoken with anyone from Asetek. And so I -- I clearly

15 didn't get it directly from them, you know. 5:47:59PM

16 BY MR. REUBEN CHEN:

17 Q Okay. I'm going to ask you about claim 15 of the

18 '266 patent now.

19 A All right.

20 Q Okay. So -- and specifically the language that 5:48:15PM

21 requires the outlet opening from the centrally located

22 microchannel is larger than the outlet opening from at

23 least one of the outer microchannels.

24 A Okay. So you're talking about the last -- the

25 last clause in -- in paragraph -- in claim 15? 5:48:53PM

1 Q Correct. 5:49:08PM

2 A Okay.

3 Q Okay. So am I correct that your opinion is that

4 an outlet opening is limited to a two-dimensional

5 plane? 5:49:25PM

6 MS. BHATTACHARYA: Objection. Form.

7 Mischaracterizes the report.

8 THE WITNESS: I -- in -- let's see. And

9 where in my report did I -- did I get into this?

10 Remind me. Maybe I can just search on it. All right. 5:50:02PM

11 Good.

12 BY MR. REUBEN CHEN:

13 Q I believe you discuss that limitation starting at

14 paragraph 70 of your report.

15 A Thank you. Okay. Well, okay. Unless I'm 5:51:21PM

16 mistaken, I don't see in 70 to 73 that I'm using the

17 phrase "outlet opening" in those paragraphs. Let's

18 see. Seventy-three.

19 I mean, I understand outlet opening in the context

20 of the '266 patent. I believe I do. And that is 5:53:31PM

21 the -- there's a figure, like Figure 2. And there's

22 this -- there are these scalloped regions. And the --

23 to me, the -- the -- that top surface of the exposed

24 microchannels is the outlet opening in -- in that

25 figure. So in the context of that patent, that's what 5:54:17PM

1 I understand outlet opening to -- to be. 5:54:25PM

2 Q So is outlet opening two dimensional or three
3 dimensional?

4 MS. BHATTACHARYYA: Objection. Vague.

5 Hypothetical. Incomplete hypothetical. 5:54:36PM

6 THE WITNESS: In my view, it's -- it's --
7 it's the plane surface. Yeah. Yeah. Yeah.

8 BY MR. REUBEN CHEN:

9 Q Okay. In fluid mechanics, does a bend with a
10 larger turning radius typically have a lower pressure 5:55:00PM
11 loss than a bend with a smaller turning radius?

12 MS. BHATTACHARYYA: Objection. Form.
13 Incomplete hypothetical. Outside the scope of the
14 deposition topic.

15 Mr. Chen, are you moving to a different topic now? 5:55:14PM

16 MR. REUBEN CHEN: No.

17 MS. BHATTACHARYYA: Does it have anything to
18 do with claim 15?

19 MR. REUBEN CHEN: This exactly has to do with
20 claim 15 in the record. 5:55:24PM

21 MS. BHATTACHARYYA: I'll give leeway for
22 Dr. Tuckerman to answer, but I don't see how it
23 relates.

24 But go ahead, Dr. Tuckerman.
25

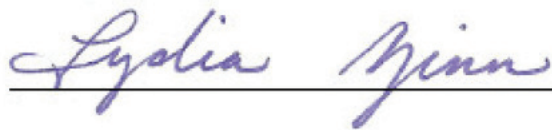
I, the undersigned, a Certified
Shorthand Reporter of the State of California, do
hereby certify:

That the foregoing proceedings were taken before
me at the time and place herein set forth; that any
witnesses in the foregoing proceedings, prior to
testifying, were placed under oath; that a verbatim
record of the proceedings was made by me using machine
shorthand which was thereafter transcribed under my
direction; further, that the foregoing is an accurate
transcription thereof.

I further certify that I am neither financially
interested in the action nor a relative or employee of
any attorney or any of the parties.

IN WITNESS WHEREOF, I have this date subscribed my
name.

Dated: March 22, 2022

A handwritten signature in blue ink, reading "Lydia Zinn", is written over a horizontal line.

LYDIA ZINN, RPR, FCRR

CSR No. 9223